SEQUENCE LISTING

<110> Rameshwar, Pranela
Gascon, Pedro

<120> A Human Preprotachykinin Gene Promoter

<130> UMDNJ NJMS 97-16

<150> US 60/171,970
<151> 1999-12-23

<160> 15

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 1286
<212> DNA
<213> Homo sapiens

<400> 1
ctatagggca cgcgtggtcg acggcccggc tggtaaattc ccctttctcc aaaatgtaaa 60
ataaatctgc ttccatcttc taaaatacta tgggactaaa catccttttg ttatgctaag 120
gaaaagccag tattcgcgtt gatttagaag agggatgttc tggttataga acgatgctgt 180
gtctcagaaa cacttaaata ctattaagct agaaatagaa gggaaaataa tgcttccccg 240
catctcccct caagtgtagt cctctttttt tagcctgatt tccgacgaaa tgtctgaatg 300
cctacagtta tttggccatc ctgaaaagtg caacttatcc tgacgtctcg agggacggaa 360
aagttaccga agtccaagga atgagtcact ttgctcaaat ttgatgagta atatcaggtg 420
tcatgaaacc cagtttcgaa ggagagggga gggggcgtca gatctgcaga cggaagcagg 480
ccgctccgga ttggatggcg agacctcgat tttcctaaaa ttgcgtcatt tagaacccaa 540
ttgggtccag atgttatggg catcgacgag ttaccgtctc ggaaactctc aatcacgcaa 600
gcgaaaggag aggaggcggc taattaaata ttgagcagaa agtcgcgtgg ggagaatgtc 660
acgtgggtct ggaggctcaa ggaggctggg ataaataccg caaggcactg agcaggcgaa 720
agagcgcgct cggacctcct ttcccggcgg cagctaccga gagtgcggag cgaccagcgt 780
gcgctcggag aaccagagaa ctcagcaccc cgcgggactg tccgtcgcag taagtgcccg 840
cgcggtgctg gccgcggctg cccgggtcat cccaccccgc atctgtccga ggtggccgcg 900
ctgggggcgc cgctgcggcg agggacagtg gggagactgg cttcccaaac gccaacgccc 960
ctctttgtct tccacctgca gagtttcctg gtttgaaggt gtgggttggt gggttagggg 1020
gctgggggag ctgggattca gggagaagag ggttggagaa tctttgggac gcgattctct 1080
cgcctaaccg gtacaggtga gacttcagtc cttatgtttt tgatcttggt tcatccgttg 1140
tggggcagaa aattctgttg ctttaactct tggataacca cccctaatag atacattatt 1200
tctctctttg gtgtcttctc ctcctacccc ttcccagaaa tccgacatga aaatcctcgt 1260
ggccttggca tctttttttc tgacgg 1286

<210> 2
<211> 2428
<212> DNA
<213> Homo sapiens

<400> 2
cgacggccct ggctggtact gctactgttg ccgccaccaa cagagatcaa aggcagagac 60
ccttctgcta gggtccaaag tccaaacagg ccactccaga gaggaaacag gcacacaggc 120
acacacccac gggaggagta ggggcccagg aagcactccc tccccaaggg caaggatggg 180
gttcccattc cacccagcac atgctcctca catctgcaca gcagggagac caaacaatag 240
atacaatttc agtgcctgat tgtcgatcaa cttacccaga agttcataat ccgaaaaatc 300
cataaagaag ctctttcaat ttcagcatgt ttaagtttca tgacttatgg tttagtgttg 360
tttttatatt ggattccatg ggtggcataa tcttttcagc actagagacc tttaaaggtc 420

tttctcagct caccccggga gacaagggct gggtgtcagg aaagtgacac acagggagaa 480
gcagaaaatg gactgggagt gtgggggccg aggcccagcc acgagaaacc caggcggtgc 540
aaggcagagc cctgggagca cagaggctgc tgtgccgtgg gttgctggtg aatgagaagc 600
ctcctctgct ttaatgaaga acatgccccc cccgactccc gctaatcctg ccctgccttc 660
atgatccaca caccacaggt gtgcacaggt tcatgcgtgt gtgtgagctt aacacgtcag 720
ccgcacatac agttgcacag aaacatcttc actgctttca cacacgtgca cacagtcaaa 780
tgaccaggag caggatcttg gggcaaacct agagcagctt ctcaggagtt agaactccag 840
ctttgctgtg gttcccagaa gagccctgac tttgtcctaa gacagtggtt ctcaaagtga 900
agtgctggct ccagcagcat cagtatcacc tgggaactcg ctggaaacgc tccgggttct 960
ggcttctcct cctagagcgc ccagagctgt ggggtcctcc cttcgggcca gaaactccaa 1020
tcataagttt ctatgtacca acccctgtgc taagtagact ttgtgcacat tatctccatt 1080
taaaatttca caaatgtact gtcagatgca cacccatttt tctatacttc tacagatggg 1140
gtaagacaga gctcagaaag gttaagagac ttgcctggag tcaccaaacc aggctccaac 1200
tccttctgta ttcagaatca ctcttcagac gtagctcctg tcctgggctg aaagtcaaca 1260
tccgccgaga gctgggccct ctgtaccagc cccatctccc ccaagtctct ccctgcctct 1320
gcagccagtc ctaaatcttt caagagacaa ggccaagcag ggggtgggac caggggcggg 1380
agccaaagcc ccccctcgtg agcaggcagc acctctgcca aggcccccac tggccctgcc 1440
ccagagaacg gcagggaagc tgcagcgagg gctggcagct ggcagagtcc tgagcaccca 1500
gcacccagcc cggcttgcag cccaaagcct ggagagaggc tgctgcgcca ttgacctgtg 1560
gactccagag actcccgctg tgcattcctc tgatctggaa ggtttcctga attacgtgac 1620
gagaaacctg ggttcgagtc ctaacttgtc accaacgttc ctgagtgacc tgggctggtc 1680
ccgtcccctt ggaatctctg tcttccatct cttcagcgaa ggggttgatt tataagggtg 1740
ttttctgctc tgacactgtg atttgaattc tgtgtttcca catgatattc gagaagtctg 1800
gccggaagga tggaatctga aatgacaatg gttctggact gggctttgtg ctcagcccag 1860
ctcatctttg cctgagacct aggagtggcc ccaggctctc ctgatgtgcc accacgcttg 1920
gcatctgctc ctctccctgc ccccatattc ccatgctctg aaggggagtt ctctttcata 1980
gcaaatccga gaggagccga ggagccaggt cctttgttcc agacccagaa gcagccatgg 2040
ggacctgtga cattgtgact gaagccaata tctcatctgg ccctgagagc aacaccacgg 2100
gcaccacagc cttctccatg cccagctggc aactggcact gtgggccaca gcctacctgg 2160
ccctggtgct ggtggccgtg acgggtaatg ccatcgtcat ctggatcatc ctggcccatc 2220
ggaggatgcg cacagtcacc aactacttca tcgtcaatct ggcgctggct gacctctgca 2280
tggctgcctt caatgccgcc ttcaactttg tctatgccag ccacaacatc tggtactttg 2340
gccgtgcctt ctgctacttc cagaacctct tccccatcac agccatgttt gtcagcatct 2400
actccatgac cgccattgct gccgacag 2428

<210> 3
<211> 2472
<212> DNA
<213> Homo sapiens

<400> 3
ggatccaatt tttgcccggc ataagtgtat agtaaatttc ccagccttaa agcacttccc 60
gagagatgct ttgagcgctc gcggtaccag tgcgtaaacg ccgctccccg gctggcgcgg 120
gtgtgcgcca actccaacct gcgcgcaagt ctgccggtgc gcgctccagt cccacagctc 180
cgagtccccg cagtgaaagg agggggcggt gcaccggggt agatgggccc ctgaggactc 240
ccggggttca gttttccgcg gctgccaaga gggccaagtt ggacagtggc agggtcctga 300
agcagatcag caacaaccgc aagtgctcca gccccaggtc ctcagacacg gaggaaaacg 360
acaagaggcg gacacacaac gtcttggaac gtcagaggag gaacgagctg aagcgcagct 420
tttttgccct gcgtgaccag atccctgaat tggaaaacaa cgaaaaggcc cccaaggtag 480
tgatcctcaa aaaagccacc gcctacatcc tgtccattca agcagacgag cacaagctca 540
cctctgaaaa ggacttattg aggaaacgac gagaacagtt gaaacacaaa ctcgaacagc 600
ttcgaaactc tggtgcataa actgacctaa ctcgaggagg agctggaatc tctcgtgaga 660
gtaaggagaa cggttccttc tgacagaact gatgcgctgg aattaaaatg catgctcaaa 720
gcctaacctc acaaccttgg ctggggcttt gggactgtaa gcttagagac tgtcacttcc 780
caggtgaatc agctagccag gtaactgagc tagatatttt gtgggggtgt ttcctaaaca 840
cagcctcagg aaagttgttt tcgggacacc tggaccaggg agtcgtcgcc tctggcttct 900
cggtagctgg agcgcggccc ggagcgcggc gctggcacat cgcccccaca catgaccgtt 960
tcccattgcc acaggcaagc cgcctctgca gagctgtctc agggctctgg gcttcattcc 1020
ctggaagttg attgtcctcc actccagctg tttcccaaat ccttccttcc tcccagcacc 1080
cctcgtgcaa cgacgattcc agctgcggac cgcatctgtg tcagttactt ccaagccacc 1140
tactgccccc tcgcggagtg cgtggggctc ccggctcgca gactcccacg gcaagtagca 1200
agcagcaaaa ggcgtggtag ctgcggcggt ggaatgagac agttgtcaac agctggcgca 1260
cgtgccgccg tgcgcaccgg gactggcgag tacgcagccc aggtactgcc ccttcccagt 1320
gacgtctctg caggggggtta taaaagcctc gtgcgcagct aactcgcgag ctgagcaacc 1380
cgaaccgaga ggtgcccgcg aaactgcagg cggcggcagc ggcagcaaaa gagaaggaaa 1440

aatctccagc tggatacgaa gctccagaat cctggccata ggctcagaac ttttacaggt 1500
cgcgctgcaa tgggccccca cttcgctcct aagtcctcac gcagcacagg gctttgcctt 1560
tccctgcgga ggaaggagaa ataggagttg caggcagcag caggtgcata aatgcggggg 1620
atctcttgct tcctagaact gtgaccggtg gaatttcttt ccctttttca gtttaccgca 1680
agagagatgc tgtctccaga cttctgaact caaacgtctc ctgaagcttg aaagtggagg 1740
aattcagagc caccgcgggc aggcgggcag tgcatccaga agcgtttata ttctgagcgc 1800
cagttcagct ttcaaaaaga gtgctgccca gaaaaagcct tccaccctcc tgtctggctt 1860
tagaaggacc ctgagcccca ggcgccagcc acaggactct gctgcagagg ggggttgtgt 1920
acagatagta gggctttacc gcctagcttc gaaatggata acgtcctccc ggtggactca 1980
gacctctccc caaacatctc cactaacacc tcggaaccca atcagttcgt gcaaccagcc 2040
tggcaaattg tcctttgggc agctgcctac acggtcattg tggtgacctc tgtggtgggc 2100
aacgtggtag tgatgtggat catcttagcc cacaaaagaa tgaggacagt gacgaactat 2160
tttctggtga acctggcctt cgcggaggcc tccatggctg cattcaatac agtggtgaac 2220
ttcacctatg ctgtccacaa cgaatggtac tacggcctgt tctactgcaa gttccacaac 2280
ttcttcccca tcgccgctgt cttcgccagt atctactcca tgacggctgt ggcctttgat 2340
aggtgagatt agcctttgtg aaaaggcgag aaagtgctca tagaggacca tggcattgct 2400
gtgaggtttg gaactgggtg gggtatgggt caagtggaag attggccact ctgagggttt 2460
ttttactgat ca 2472

<210> 4
<211> 1021
<212> DNA
<213> Homo sapiens

<400> 4
gagagtgcgg agcgaccacg tgcgctcgga ggaaccagag aaactcagca ccccgcggga 60
ctgtccgtcg caaaatccaa catgaaaatc ctcgtggcct tggcagtctt ttttcttgtc 120
tccactcagc tgtttgcaga agaaatagga gccaatgatg atctgaatta ctggtccgac 180
tggtacgaca gcgaccagat caaggaggaa ctgccggagc cctttgagca tcttctgcag 240
agaatcgccc ggagacccaa gcctcagcag ttctttggat taatgggcaa acgggatgct 300
gattcctcaa ttgaaaaaca agtggccctg ttaaaggctc tttatggaca tggccagatc 360
tctcacaaaa gacataaaac agattccttt gttggactaa tgggcaaaag agctttaaat 420
tctgtggctt atgaaaggag tgcaatgcag aattatgaaa gaagacgtta ataaactacc 480
taacattatt tattcagctt catttgtgtc aatgggcaat gacaggtaaa ttaagacatg 540
cactatgagg aataattatt tatttaataa caattgttta gggttgaaaa ttcaaaaagt 600
gtttattttt catattgtgc caatatgtat tgtaaacatg tgttttaatt ccaatatgat 660
gactccctta aaatagaaat aagtggttat ttctcaacaa agcacagtgt taaatgaaat 720
tgtaaaacct gtcaatgata cagtccctaa agaaaaaaaa tcattgcttt gaagcagttg 780
tgtcagctac tgcggaaaag gaaggaaact cctgacagtc ttgtgctttt cctatttgtt 840
ttcatggtga aaatgtactg agattttggt attacactgt atttgtatct ctgaagcatg 900
tttcatgttt tgtgactata tagagatgtt tttaaaagtt tcaatgtgat tctaatgtct 960
tcatttcatt gtatgatgtg ttgtgatagc taacatttta ataaaaagaa aaaatatctt 1020
g 1021

<210> 5
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 5
gtggagacaa gaaaaaagac tgcca 25

<210> 6
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 6
gaagatgctc aaaggcgtcc ggcag 25

<210> 7
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 7
ataattctgc attgcactcc tttcat 26

<210> 8
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 8
aatttacctg tcattgccc 19

<210> 9
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 9
agcccttga gcatcttc 18

<210> 10
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 10
agtctcctta ctgtgacacc 20

<210> 11
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 11
ctaccacctc tacttcatcc 20

<210> 12
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 12
ctgctggata aacttcttca ggtag 25

<210> 13
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 13
aggacagtga cgaactattt tctgg 25

<210> 14
<211> 1228
<212> DNA
<213> Homo sapiens

<400> 14
cgacggcccg gctggtaaat tccccttttct ccaaaatgta aaataaatct gcttccatct 60
tctaaaatac tatgggacta aacatccttt tgttatgcta aggaaaagcc agtattcgcg 120
ttgatttaga agagggatgt tctggttata gaacgatgct gtgtctcaga aacacttaaa 180
tactattaag ctagaaatag aagggaaaat aatgcttccc cgcatctccc ctcaagtgta 240
gtcctctttt tttagcctga tttccgacga aatgtctgaa tgcctacagt tatttggcca 300
tcctgaaaag tgcaacttat cctgacgtct cgagggacgg aaaagttacc gaagtccaag 360
gaatgagtca ctttgctcaa atttgatgag taatatcagg tgtcatgaaa cccagtttcg 420
aaggagaggg gaggggcgt cagatctgca gacggaagca ggccgctccg gattggatgg 480
cgagacctcg attttcctaa aattgcgtca tttagaaccc aattgggtcc agatgttatg 540
ggcatcgacg agttaccgtc tcggaaactc tcaatcacgc aagcgaaagg agaggaggcg 600
gctaattaaa tattgagcag aaagtcgcgt ggggagaatg tcacgtgggt ctggaggctc 660
aaggaggctg ggataaatac cgcaaggcac tgagcaggcg aaagagcgcg ctcggacctc 720
ctttcccggc ggcagctacc gagagtgcgg agcgaccagc gtgcgctcgg agaaccagag 780
aactcagcac cccgcgggac tgtccgtcgc agtaagtgcc cgcgcggtgc tggccgcggc 840
tgcccgggtc atcccacccc gcatctgtcc gaggtggccg cgctgggggc gccgctgcgg 900
cgagggacag tggggagact ggcttcccaa acgccaacgc ccctctttgt cttccacctg 960
cagagtttcc tggtttgaag gtgtgggttg gtgggttagg gggctggggg agctgggatt 1020
cagggagaag agggttggag aatctttggg acgcgattct ctcgcctaac cggtacaggt 1080
gagacttcag tccttatgtt tttgatcttg gttcatccgt tgtggggcag aaaattctgt 1140
tgctttaact cttggataac cacccctaat agatacatta tttctctctt tggtgtcttc 1200
tcctcctacc ccttcccaga aatccgac 1228

<210> 15
<211> 1003
<212> DNA
<213> Homo sapiens

<400> 15
gcgccgcaag gcactgagca ggcgaaagag cgcgctcgga cctccttccc ggcggcagct 60
accgagagtg cggagcgacc agcgtgcgct cggaggaacc agagaaactc agcaccccgc 120
gggactgtcc gtcgcaaaat ccaacatgaa aatcctcgtg gccttggcag tctttttttct 180
tgtctccact cagctgtttg cagaagaaat aggagccaat gatgatctga attactggtc 240
cgactggtac gacagcgacc agatcaagga ggaactgccg gagcctttg agcatcttct 300
gcagagaatc gcccggagac ccaagcctca gcagttcttt ggattaatgg gcaaacggga 360
tgctggacat ggccagatct ctcacaaaat ggcttatgaa aggagtgcaa tgcagaatta 420
tgaaagaaga cgttaataaa ctacctaaca ttatttattc agcttcattt gtgtcaatgg 480
gcaatgacag gtaaattaag acatgcacta tgaggaataa ttatttattt aataacaatt 540
gtttggggtt gaaaattcaa aaagtgttta tttttcatat tgtgccaata tgtattgtaa 600
acatgtgttt taattccaat atgatgactc ccttaaaata gaaataagtg gttatttctc 660
aacaaagcac agtgttaaat gaaattgtaa aacctgtcaa tgatacagtc cctaaagaaa 720
aaaaatcatt gctttgaagc agttgtgtca gctactgcgg aaaaggaagg aaactcctga 780
cagtcttgtg cttttcctat ttgttttcat ggtgaaaatg tactgagatt ttggtattac 840
actgtatttg tatctctgaa gcatgtttca tgttttgtga ctatatagag atgtttttaa 900
aagtttcaat gtgattctaa tgtcttcatt tcattgtatg atgtgttgtg atagctaaca 960
ttttaaataa aagaaaaaat atcttgaaaa aaaaaaaaaa aaa 1003